

**AMENDMENTS TO THE CLAIMS**

**Claims 1-12 (canceled)**

**Claim 13 (currently amended):** A flat panel display comprising:

a front plate;

a rear plate;

a layer of liquid crystals and a TFT array layer, both interposed between the said. front and rear plates; and

at least one thermal sensor integral to the TFT array layer and hidden by an EMI layer to provide temperature sensing of said layer of liquid crystals.

**Claim 14 (original):** A flat panel display according to claim 13, wherein said at least one thermal sensor is comprised of an array of diodes.

**Claim 15 (canceled)**

**Claim 16 (previously presented):** A flat panel display according to claim 13, wherein the at least one thermal sensor is applied onto the TFT array layer.

**Claim 17 (previously presented):** The flat panel display of claim 13, wherein:

the thermal sensor provides a nominal 2.5 volt to 5.0 volt change in bias potential as the liquid crystal temperature changes from -60 degrees Celsius to 100 degrees Celsius.

**Claim 18 (canceled)**

**Claim 19 (currently amended):** The flat panel display of claim ~~18~~ 13, wherein each at least one thermal sensor lies under the EMI layer.

**Claim 20 (currently amended):** The flat panel display claim ~~18~~ 13, wherein the EMI layer is a black mask EMI layer.